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ABSTRACT

Defining curriculum design as a critically examined theoretical framework for developing curriculum, this document examines various decision-making processes of planning curriculum. Discussed are the importance of curriculum design, and attempts to examine four systems of curriculum thought, along with curriculum design currently available for curriculum planning purposes in the United States and other parts of the world. Discussed is a conception of curriculum design that is based on research on the ways of knowing. (TW)

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A NEW APPROACH TOWARDS CURRICULUM DESIGN

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Education in one respect is the means of perpetuating culture from generation to generation. Thus, it is natural that the partiality of outlook endemic in the culture generally would be also in education. Yet, this consequence need not follow. Indeed, the special office of education is to widen one's view of life, to deepen insight into relationship, and to counteract the provincialism of customary existence. In short, to engender an integrated outlook, and create harmony among humanity.

If this integral perspective is to be attained, a design of curriculum is necessary. By such a design is meant a critically examined theoretical framework for developing curriculum. The design examines the various decision-making processes of planning curriculum. Curriculum is like a river with two main sources, the practical source, and the theoretical source. The practical source is the desire to direct our actions to achieve predetermined ends. The theoretical source is the desire to understand the various decision-making steps of curriculum. The ability to identify and order decision-making components of curriculum constitutes what I call curriculum thought or design or curriculum conceptual map. Curriculum thought is the basis of organized action and organization of thought is the adjustment of diverse elements of designing so that their mutual relations may exhibit some predetermined quality.

A design of curriculum is important for many reasons, among which the following four may be cited: First, comprehensive outlook is necessary for all intelligent decisions about which level of decision-making must come first or last during the period of curriculum development. If one decision is to be chosen instead of another, it is important to know how one differs from the other and why the one is to be preferred to the other as a constituent in the

complete pattern of developing curriculum. Second, because curriculum is designed for persons and since a person is essentially an organized totality and not just a collection of separate parts, the curriculum ought to have a corresponding organic quality. This is very important since it is one and the same person who undergoes each of the successive experiences in the curriculum, the plan of the curriculum can best contribute to the person's growth if it is governed by the goal of wholeness for the human being.

Third, society, as well as individualized persons, depends upon principles of community; corporate life, like the life of each individual requires some overall plan. A curriculum planned as a comprehensive design for learning constitutes a basis for the growth of community, while an atomized program of studies engenders disintegration in the life of society.

Fourth, a comprehensive curriculum design gives added significance to each of the decision-making segments of the curriculum. The value of any subject is enhanced by an understanding of its relationships with other subjects and its distinctive features are best comprehended in the light of its similarities and contrasts with other subjects.

Review of Curriculum Designs

This section will first attempt to examine four systems of curriculum thought, curriculum design currently available for curriculum planning purposes in the United States and other parts of the world, and then discuss my own conception of curriculum design, which is really influenced by research on the ways of knowing. It is important to note that the review of the four systems of curricular design referred to here does not describe the full array of resources available to curriculum planners. The systems to be outlined briefly here are selected chiefly because they approach the problems of

practical choices in curriculum planning from four quite different perspectives.

Four systems of curriculum thought come to mind as models that have shaped the discussions about curriculum for the last two decades or so in the United States and other parts of the world.

The first, and surely the most directly influential of these four conceptual maps is Tyler's (1950) formulation of the procedures for specifying curriculum content. The "Tyler rationale", enthusiastically embraced by a generation of reformists seeking to codify and streamline the curriculum planning processes, identifies a series of sequenced steps in the curriculum development process. The steps are the following:

- a) Specifying of Objectives;
- b) Selecting learning experiences;
- c) Organizing the experiences according to appropriate principles;
- d) Evaluating the extent to which objectives are met.

It is apparent that the Tyler rationale provides a checklist in a logical progression, and also opportunity for a thoughtful discussion of the issues to be addressed in making decisions at each step along the way. Similarly, the Tyler design offers a responsible guide to the procedures of constructing a curriculum. By specifying a cumulative sequence, the Tyler rationale attempts to ensure that each step in program planning is informed by appropriate decisions made at the preceding points. One major shortcoming of Tyler's curriculum thought is the fact that while it suggests that objectives of the curriculum must reflect the needs and interests of the learner, the community

and subject-matter specialists, it fails, however, to indicate who the decision-makers are, during the planning period.

Another curriculum thought worthy of review here, is Schwab's conception of the "practical" concerns of curriculum planners and especially his model of four "commonplaces" of the curriculum (Schwab, 1978). Unlike Tyler's model, the commonplaces is not themselves a guide to procedure, instead they identify the points around which decisions can be made. Thus, curriculum decisions can be made concerning the subject matter of the curriculum, the teachers, the students, or the milieu in which all coexist: a decision about any one of these commonplaces will affect the other three. The commonplaces describe in general terms the features of any educational terrain, each more or less subject to manipulation by direct intervention. Changes in any one will affect the quality of the others. For example, any change in subject matter must account for the educational preparation, capabilities and needs and interests of the students to whom it is addressed and for teachers' capability of teaching. It is important to point out that Schwab specifies no order in which the commonplaces should be addressed. Thus, it is apparent that Schwab's curriculum model only identifies points of change. It is therefore appropriate to note that where Tyler's model attempts to describe how to construct a curriculum, Schwab's model identifies where change can occur.

The third model of curriculum thought for consideration is the "Conflicting conceptions of curriculum" model. This was first proposed by Eisner and Vallance nearly two decades ago (Eisner & Vallance, 1974). The model addresses neither the procedures of curriculum change nor the points at which it can happen. Rather, it identifies five sets of general concerns that may drive a curriculum development effort and shape the decisions it must make. The "conflicting concerns" are differing and sometimes mutually

exclusive. Four of the conceptions refer to broad purposes of schooling. One body of curriculum writing sees the chief concern of the curriculum as the development of cognitive processes in children, providing cognitive skills that will enable them to attack problems and master material. Another line of thought envisions the school's chief task as that of facilitating the "self-actualization" of pupils, liberating pupils to achieve their full potential in intellectual and other realms. A third would use the school deliberately as an agency of social change, a basis for reconstructing society through a curriculum attuned to social problems and current conceptions of "relevance". The "academic rationalist" conception is concerned chiefly with passing on established traditions of culture from one generation to another, usually in the form of the established intellectual disciplines (see my introduction). For example, the recent situation at Stanford University, where the diversification of the English literature curriculum to include other non-European writers was strongly opposed by many as adulteration of the western intellectual culture including current Education Secretary William Bennett illustrates the above point. The fifth conception, "curriculum as technology", is less concerned with the specific purposes of schooling than with their efficient management and reflects a line of thought where both the human mind and the educational system are constructed in technical terms, subject to ever increasing efficiency and governed by logical applications of means to ends.

The five conceptions described above attempt to identify alternative sets of fundamental concerns held by educators. Ultimately, they map out alternative goals of education, distinguishing among sets of assumptions and lines of thought held by different participants in the educational dialogue.

The conflicting conceptions of curriculum offer, at base, alternative and competing purposes of education from which to select.

The fourth system of curriculum thought here also sheds light in assessing curriculum questions. Huebner's essay on "Curricular Language and Classroom Meaning" offers five perspectives from which educational activity can be valued (Huebner, 1966). He calls these "rationales". These rationales are under the following headings:

- a) Technical - concerned with the efficient mobilization of resources to meet desired ends;
- b) Political - concerned with the power relationships developed within an educational system and community;
- c) The scientific - concerned with the understanding of educational phenomena;
- d) The aesthetic - concerned with the symbolic or aesthetic impact of educational phenomena on students;
- e) Ethical - concerned with the value of educational activity for the child, and the moral implications of the teacher's responsibility for it.

According to Huebner, education in general has typically emphasized the first three to the exclusion of the latter two. In fact, whether in the United States, Europe or Africa, most educators and politicians in educational analogues acknowledge the political content in some curriculum reform. In the United States, the debates over the teaching of creationism and school prayer attest to the political nature of curriculum reforms. Similarly most curriculum reforms are much concerned with effective schools and emphasized on science and technology. The aesthetic and the ethical implications of curriculum change often get lost in the debates. Granted that Huebner's arguments is valid, one may be tempted to ascribe the reasons for the emergence of many Ivan Boesky's and Michael Deavers as evidence of lack of ethical education in the schools in this country. Understandably, the recent

call for the teaching of ethics in universities and colleges and particularly in Business schools is somewhat justified if Huebner's curricular perspectives are accepted. At any rate, Huebner's five "rationales" provide a system of questions to ask in making curriculum decisions, for they provide filters through which to understand practical action.

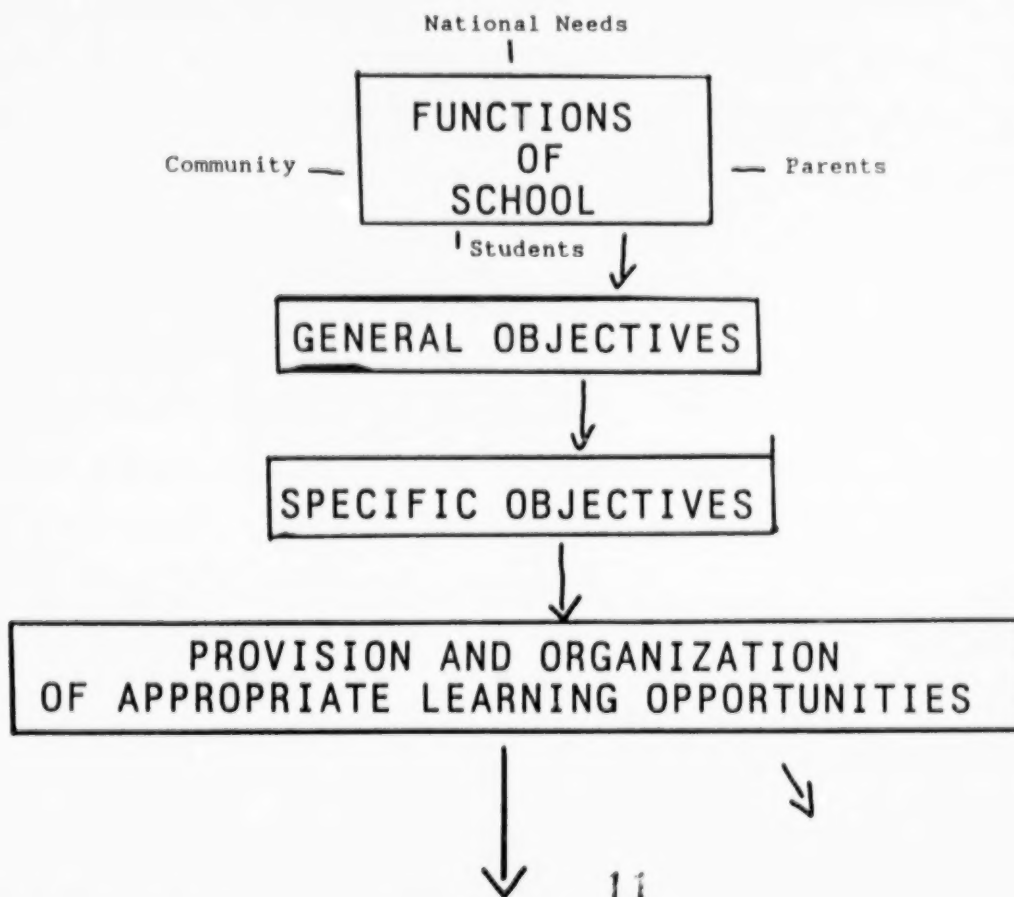
The four systems of curriculum discussed above seem to meet different needs for curriculum planners. They provide different sets of concepts with which to approach a curriculum. However, it is important to remark that not all the four curriculum thought will be appropriate or valuable in every curricular decision making process, and there is a sense in which some are logically prior to others. For example, the identification of which of the four commonplaces is most in need of reform [Schwab], may well precede any considerations of the procedure by which new objectives should be developed [Tyler]. Equally, an application of Huebner's five "rationales" could initiate a curriculum reform effort by identifying dimensions on which the present curriculum is weak or as a set of judgments to be made as part of the evaluation process. A consideration of the different "conflicting conceptions of curriculum" operating in a debate over curriculum priorities (Eisner and Vallance) may not be necessary if the participants hold in shared conception of the major concerns of the curriculum. However, that model might be preferable midway through an application of Tyler's sequence for curriculum development to resolve a dispute over content.

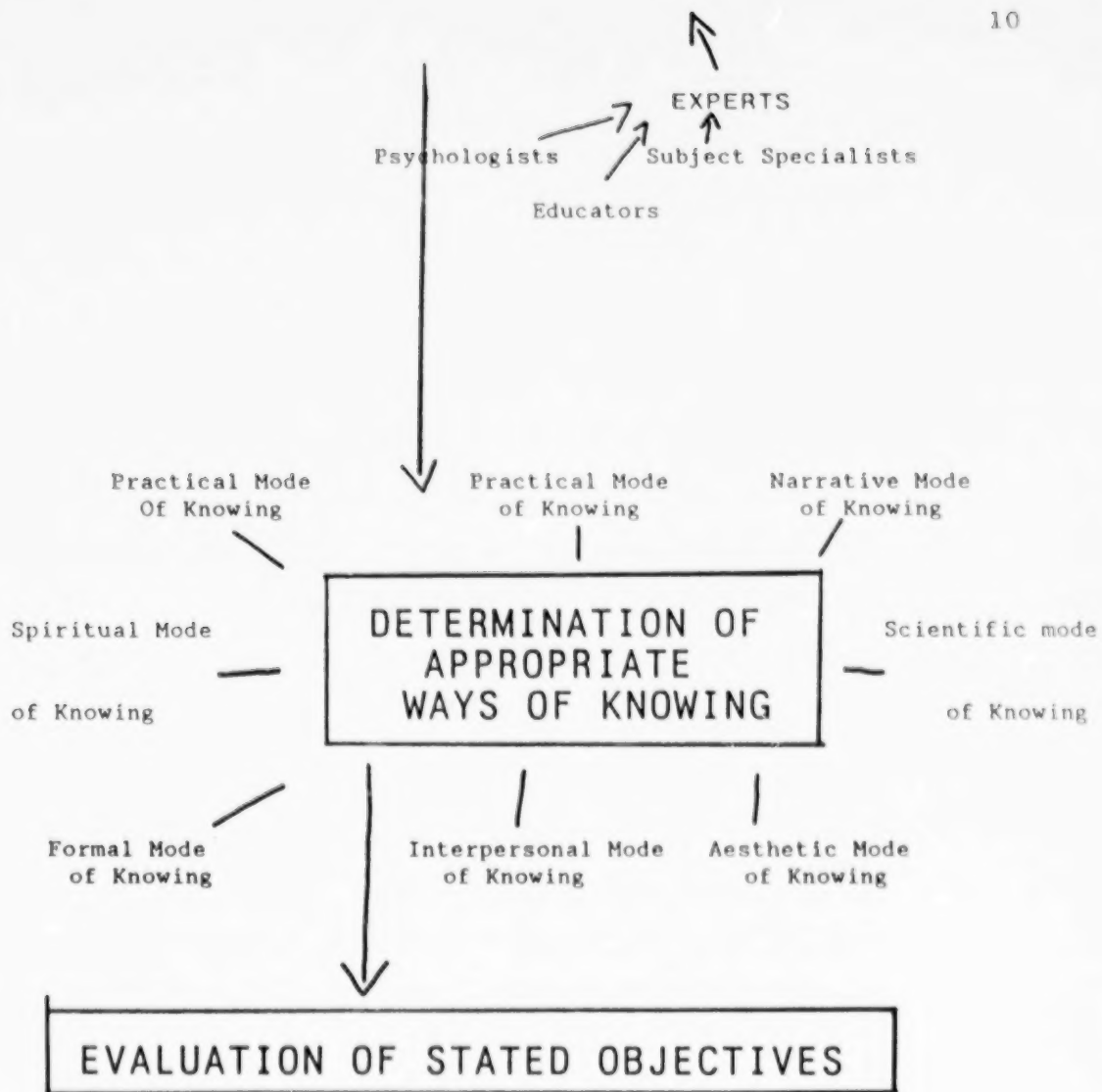
Before introducing my own curriculum thought which recognizes the multiple ways of knowing, I think it is important at this juncture to identify the kinds of perspectives that the four approaches to curricular problems discussed earlier offer to the task of curricular development. The exercise will prove to be important in the sense that it identifies gaps in the lines

of thinking about the four curricular designs, and as such, indicate the special place and contribution of my own conceptual map. By way of review of the four systems of curricular thought, it is no exaggeration to state that the four conceptual maps collectively offers two distinct kinds of decision-making tools. One category includes those systems of curriculum that identify the areas to be addressed in the process of curriculum development. Schwab emphasizes the importance of subject-matter, teachers, students, and milieu, while Tyler provides a checklist of procedures to be considered as we make changes in the curriculum. These two "process" maps function exactly as maps. They remind decision-makers of where they are and of what still needs to be considered before they can reach their final destination of a complete new curriculum. The contrasting category would embrace those systems of curriculum thought that themselves identify curricular options or provide criteria for assessing the appropriateness of curriculum content. The perspectives charted by Eisner and Vallance identify some available biases in curriculum purpose and content (social reconstructionism, for example), Huebner's five "rationales" outline languages available to be used in arguing a curriculum to some public, and thereby provide bases on which to judge particular curriculum. Thus, if we now try to dichotomize the four systems of curriculum thought sketched above, we would find a contrast between systems that somewhat abstractly identify things to think about in during curriculum developmental (process-oriented) systems and those systems which prescribe content areas and bases for evaluation.

By way of criticism of the four systems of curriculum thought, it is obvious to deduce that none of the four addresses curricular goals in terms not reducible to content mastery. Equally, none of the four designs identifies or argues for a way of knowing that differs substantially from the

traditional conception of knowledge as logical, linear and scientifically guideable. It is in this context that the notion of multiple ways of knowing assumes a special importance in my formulation of curriculum thought. The curricular thought I envisaged is one which first of all identifies the purposes which a school serves, where the needs and interest of students, parents, the community and the nation are all considered. These purposes help in prescribing areas of curriculum [both general and specifics] content as well as providing procedures guaranteeing that the standard content options are considered. This is followed by provision and organization of appropriate learning opportunities. The next step of this curriculum design is the consideration of the appropriate modes of knowing followed by evaluation of the stated objectives. [see figure below]





The idea of multiple ways of knowing forms the major decision-making process of the curriculum as outlined above. Whether one adopts Tyler or Schwab or integrates all four, there will always be in my view this question: In which modes of knowing have student been educated up to now, and which should the curriculum foster? The notion that there are many ways of knowing and that schooling has traditionally excluded whole realms of intellectual

development is immensely disturbing. It is also disturbing that the conceptions of curriculum as reviewed in this paper have perhaps deliberately fostered this omission by being themselves based on a single limited conception of knowledge. Given that the ways of knowing outlined here are an appropriate demarcation of the vast realm of human intelligence, the relevance of these insights of curriculum planning is clear in several respects. Consider, for example, the academic rationalistic perspective in the Eisner and Vallance model. The academic rationalistic approach to curriculum development is to weigh systematically areas of knowledge against the prevailing culture to identify "what knowledge is most worth". The question of "worth" may be considered in its own terms; that is, a discipline may be valued and included in the curriculum because it is and always has been, central to the progression of the western intellectual tradition. Thus, if some form of mathematics is required in all schools in a country. First, mathematics is valued for its own sake as an established discipline. It could also be valued as a necessary skill. Similarly, if one sees the school as an agency of social change, a basis for reconstructing society through a curriculum attuned to social and political problems, then some form of socio-political education may be required in the school. For example, in South Africa today, there is a call for a new form of education known as "Peoples' Education". The proponents of "Peoples' Education" see the school as a liberating agency. Consequently they argue that the curriculum should be designed to empower students to fight for a unitary and liberated South Africa. Granted that both mathematics and socio-political are disciplines that may be valued and included in the school curriculum and also accept the fact that there may be many ways of knowing, then we are forced to ask either of two questions about designing curricula for mathematics and political

education. First, which of the many ways of knowing are embodied in mathematics and politics and which of them can a teacher reasonably be expected to teach? Secondly, given the modes of knowing that we wish to foster in the curriculum, what will be the role of mathematics or political education? The first question, I believe, allows decision-makers to retain a subject matter component of the curriculum and challenges them to identify new qualities within it. The premise of the second question defines ways of knowing as the guiding concern, with mathematics as well as political education admitted as a possible medium for teaching them. The ways-of-knowing component of my design therefore allows new rationales for traditional subjects while also admitting the possibility that there are many ways in which educational goals can be achieved.

Referring back to my design, it must be borne in mind that the determination of general and specific objectives must always reflect the needs and the interest of students, parents, the community and the nation as a whole. To ensure this, teachers, students, parents, and the community must all be active participants in formulating the objectives.

Determination of appropriate learning opportunities must fall on the shoulders of experts. By experts I mean persons who have both theoretical and practical insights into human learning and classroom teaching. In other words, decision about determining the necessary learning opportunities should be undertaken by educators [teachers, school counselors and administrators], psychologists and subject-matter specialists. Parents' active role in this decision-making is not expected, however, they could be informed of the final decision made as regards to the appropriate learning opportunities available

to their children. Students' participation in this level of decision is practically nil. However, different learning experiences which incorporate the many-ways-of-knowing may be made available so that students may choose which appropriate means he/she wants to be educated. This is based on the belief that knowledge in any discipline is more varied and more diverse and that knowing the variety of ways of knowing may expose children to several cognitive modes, thereby providing access to children who are not deemed "gifted". I believe education is about access to opportunities any attempt to limit children to a single cognitive mode in my view is a crime to humanity. Many children have been deprived of learning opportunities because they have been denied the different modes of knowing where their potentials could have been realised.

Evaluating the extent to which the dated objectives are met would be done by all parties involved in the formulation of the objectives. That is to say that teachers, parents, students and the community will be involved in assessing the success of their objectives. However, premium ought to be placed on the evaluation by students since they are the ultimate recipients of curricular materials.

Finally, on closer scrutiny of the curriculum thought proposed by this author, one observes that much credence is given to the ways of knowing. I believe this ought to be the case for acknowledging the human knowing takes many forms must equally acknowledge that the organization of curricula by which children are taught must be subject to substantial change. That change cannot come about, however, unless curriculum planners are able to change their own approaches to the questions of what is knowledge and how knowing can be taught.

Notes:

In this paper, terms such as curriculum thought, curriculum design, conceptual map and organized thought have been used interchangeably.

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